

OCTOBER LOWER STRATOSPHERIC ANTARCTIC TEMPERATURE AND TOTAL
OZONE FROM 1979 TO 1985

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During October, from 1979 to 1985, southern hemisphere daily plots of TOMS total ozone and lower stratospheric temperature are shown to be strongly correlated. The same result is found for the monthly averages. Additionally, these data reveal strong wave events during the ozone hole period. October zonal means of TOMS total ozone and NMC temperature are well correlated from year to year, and both are decreasing. Finally, the mid-latitude temperature maximum is found to be radically cooler in 1985 than in either 1979 (a dynamically active year) or in 1980 (a dynamically quiescent year).

Table 1. CONCLUSIONS

1. Total ozone and temperature are spatially correlated.
2. Total ozone and temperature are correlated on a year-to-year basis.
4. Both total ozone and temperature are decreasing.

TOMS summary: The TOMS instrument has helped reveal the planetary scale and time variability of the ozone hole. It has revealed and confirmed various wave events, and it has enhanced our understanding of the final warming and polar vortex breakdown.